REMARKS

Claims 10-25 are all of the claims pending in the application. By this Amendment, Applicant hereby amends claims 14 and 20, without narrowing, for purposes of clarity.

I.   Summary of the Office Action

The Examiner withdrew the objections to the specification. The Examiner withdrew the rejection of claims 10-20 under 35 U.S.C. § 112, first paragraph. The Examiner withdrew the rejection of claims 10-12 and 15-18 under 35 U.S.C. § 102(b).

Newly added claim 22 is rejected under 35 U.S.C. § 112, second paragraph. Claims 16-18 are newly rejected under 35 U.S.C. § 101. Claims 10-20 remain rejected under 35 U.S.C. § 103(a), but the Examiner applied a new reference. Newly added claims 21-25 are also rejected under 35 U.S.C. § 103(a).

II.   Claim Rejection under 35 U.S.C. § 112, Second Paragraph

Claim 22 is rejected under 35 U.S.C. § 112, second paragraph. The Examiner alleges that claim 22 is indefinite. Specifically, the Examiner alleges that there is insufficient antecedent basis for the limitation, "the workpiece model created by the workpiece-model creating unit."

Applicant respectfully disagrees. Claim 1, the base claim for claim 22, recites, *inter alia*, "creating a workpiece model for lathe turning based on the selected workpiece data," providing antecedent basis for the noted feature of claim 22. Accordingly, Applicant respectfully submits that there is sufficient antecedent basis for the limitation. Applicant respectfully submits that claim 22 is definite and respectfully requests that the Examiner withdraw the 35 U.S.C. § 112, second paragraph rejection of claim 22.

III.   Claim Rejections under 35 U.S.C. § 101

Claims 16-18 are rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. Applicant respectfully traverses this rejection.

Claim 16 is hereby amended. Applicant respectfully submits that claims 16-18 are directed to statutory subject matter. Applicant respectfully requests that the Examiner withdraw the 35 U.S.C. § 101 rejection of claims 16-18.

IV.   Claim Rejections under 35 U.S.C. § 103(a)

Kamiya in view of Susnjara

Claims 10-12, 15-18, 24, and 25 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over WO 02/095512 to Kamiya in view of U.S. Patent No. 6,580,963 to Susnjara (hereinafter "Susnjara"). In order to expedite prosecution, the Examiner references corresponding U.S. Patent No. 6,850,814 to Kamiya (hereinafter "Kamiya"). Applicant respectfully traverses this rejection and respectfully requests the Examiner to reconsider this rejection at least in light of the exemplary comments which follow.

Turning first to independent claim 10, the Examiner alleges that Kamiya discloses "comparing dimension data of the workpiece model with dimension data of the product model," as recited, *inter alia*, in claim 10. The Examiner points to col. 6, lines 25-39; col. 8, lines 26-37; and FIG. 6 of Kamiya (*see* page 14 of the Office Action). Applicant respectfully disagrees.

Rather than disclosing comparing dimension data of the workpiece model with dimension data of the product model, Kamiya discloses that <u>an envelope shape is generated</u> that is determined as being able to be turned <u>based on the part shape</u> input through the part shape input unit (*see* col. 6, lines 25-39 of Kamiya). But an <u>envelope shape</u> determined as being able to be turned based on the part shape is not the same as a <u>workpiece model</u>, as recited in claim 10.

Furthermore, Kamiya does not disclose that <u>dimensional data</u> of the envelope shape is compared to <u>dimension data</u> of a product model or of a part shape. Rather, Kamiya discloses that the envelope shape is determined as <u>being able to turn based on the part shape</u> (*see* col. 6, lines 35-39 of Kamiya). In short, Kamiya does not disclose or suggest <u>comparing dimension data</u>, as disclosed in claim 10.

The Examiner argues that Kamiya clearly shows a product model 100 compared with a "cross sectional shape that passes through a point farthest from the turning axial core a among end points of the part shape 100." Applicant respectfully disagrees. According to Kamiya, the envelope shape is <u>generated</u> that envelopes the part shape. Thus, rather than a comparison, Kamiya discloses generation of the envelope shape that envelopes that part shape.

The Examiner appears to concede that Kamiya fails to teach "selecting, when there is a plurality of workpiece data involving the product shape and having the smallest diameter for lathe turning around the turning axis, workpiece data having a length equal to or longer than the product shape and a shortest length," as recited, *inter alia*, in claim 10. However, the Examiner alleges that this limitation is not required by the claim language as it is conditionally recited. Applicant respectfully disagrees.

The Examiner cites MPEP § 2111.04 and notes that "Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed." But the claim language <u>does not</u> merely suggest or make optional this feature. Rather, the claim <u>requires</u> the selecting whenever "there is a plurality of workpiece data involving the product shape and having the smallest diameter for lathe turning around the turning axis," and thus the claim scope is limited by this language (*see* MPEP § 2111.04). Accordingly, Applicant respectfully submits that Kamiya and Susnjara are deficient as they fail to teach or suggest this feature.

The Examiner concedes that Kamiya does not teach "selecting workpiece data from a workpiece database in which a material, a shape, and a dimension of a workpiece are registered," as recited *inter alia*, in claim 10. However, the Examiner asserts that Susnjara teaches this feature. Applicant respectfully disagrees.

Instead of teaching selecting <u>workpiece data</u> from a workpiece database, Susnjara teaches selecting <u>off-fall material</u> from a database (*see* col. 3, lines 44-51 of Susnjara). A person of ordinary skill in the art would understand that workpiece data is not the same as off-fall material because off-fall material refers to excess material from a production run which will be scrapped unless it can be used for another product (*see* col. 1, lines 31-36 of Susnjara). Furthermore, rather than selecting <u>data</u>, according to Susnjara, off-fall material meeting the proper criteria is selected and the operator is prompted as to which piece of material to load onto the worktable (*see* col. 3, lines 45-50 of Susnjara). Thus, according to Susnjara, rather than selecting data, a particular piece of off-fall material is identified.

Furthermore, Applicant respectfully submits that no apparent reason exists for combining the Kamiya and Susnjara references. The Examiner asserts that it would have been obvious in order to achieve the predictable result of providing workpiece data from a workpiece database. But the Examiner has not identified any reason, either in the references or known to one of skill in the art at the time of the invention, as to <u>why</u> it would have been desirable to modify the references or why it would be desirable to provide workpiece data from a workpiece database. Applicant respectfully submits that no such reason exists.

Accordingly, Applicant respectfully submits that claim 10 is patentable over Kamiya and Susnjara at least for the reasons discussed above. Applicant respectfully submits that claims 11,

12, 24, and 25 are patentable over Kamiya and Susnjara at least by virtue of their dependency on claim 10.

Independent claims 15 and 16 recite features similar to, although not necessarily co-extensive with, the features discussed above with respect to independent claim 10. Consequently, Applicant respectfully submits that claims 15 and 16 are patentable over Kamiya and Susnjara for at least the reasons discussed above with respect to claim 10. Applicant respectfully submits that claims 17 and 18 are patentable over Kamiya and Susnjara at least by virtue of their dependency on claim 16.

Kishi in view of Susnjara

Claims 10-12, 15-18, 21, 24, 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,723,203 to Kishi et al. (hereinafter "Kishi") in view of Susnjara. Applicant respectfully traverses this rejection and respectfully requests the Examiner to reconsider this rejection at least in light of the exemplary comments which follow.

Turning first to independent claim 10, the Examiner alleges that Kishi discloses "selecting, when there is a plurality of workpiece data involving the product shape [...] for lathe turning around the turning axis, workpiece data having a length equal to or longer than the product shape and a shortest length," recited, *inter alia*, in claim 10. Applicant respectfully disagrees.

According to Kishi, <u>one selects a blank profile and enters its dimensional values L, D, D_0, and the position of a base line ZP</u> (*see* col. 5, lines 16-25 of Kishi). But Kishi does not disclose <u>selecting workpiece data having a length equal to or longer than the product shape and a shortest length</u>. Kishi merely discloses that the user enters the dimensional values; Kishi does not disclose any process for selecting the data. In other words, the selecting is not part of the

machining process determination method in automatic programming according to Kishi. Instead of teaching selecting as part of an automatic programming method, Kishi teaches that the <u>user</u> manually inputs the dimensional values and the position of the base line.

The Examiner points to col. 9, lines 1-15 of Kishi and argues that the selected blank having L greater than Zmax is selecting workpiece data having a length equal to or longer than the product shape and a shortest length (see page 14 of the Office Action). Applicant respectfully disagrees.

According to Kishi, the dimensional value L is a user entered value. Furthermore, rather than selecting workpiece data, Kishi merely discloses that, if the result of the comparison is L > Zmax, then it is decided that end face rough cutting is a machining process needed to obtain the final part profile (*see* col. 9, lines 13-18 of Kishi). Thus, rather than selecting workpiece data, Kishi determines whether a particular machining process is needed to obtain the final part profile.

The Examiner concedes that Kishi does not teach selecting workpiece data having a smallest diameter and a shortest length. However, the Examiner alleges that Kishi teaches that various machining processes are performed when it is determined that the blank profile dimensions of diameter and length are too large. Therefore, the Examiner alleges that it would have been obvious to one of ordinary skill in the art at the time of the invention to select the workpiece data having a smallest diameter and a shortest length to minimize wasted material since it is commonly known in the art that in lathes, it is preferable to reduce the diameter of a workpiece in incremental fashion. Applicant respectfully disagrees.

As discussed above, according to Kishi, the user manually inputs the dimensional values and the position of the base line. Thus, to modify Kishi such that, as part of an automatic

programming method, workpiece data having a smallest data and a shortest length is selected, would require that the principle of operation of Kishi be changed completely. It is not clear how a person of ordinary skill in the art would modify Kishi to incorporate the selecting as part of the automatic programming method. Accordingly, Applicant respectfully submits that such a modification is non-obvious.

The Examiner concedes that Kishi does not teach "selecting workpiece data from a workpiece database in which a material, a shape, and a dimension of a workpiece are registered," as recited *inter alia*, in claim 10. However, the Examiner asserts that Susnjara teaches this feature. Applicant respectfully disagrees.

As discussed above, instead of teaching selecting workpiece data from a workpiece database, Susnjara teaches selecting off-fall material from a database (*see* col. 3, lines 44-51 of Susnjara). A person of ordinary skill in the art would understand that workpiece data is not the same as off-fall material because off-fall material refers to excess material from a production run which will be scrapped unless it can be used for another product (*see* col. 1, lines 31-36 of Susnjara). Furthermore, rather than selecting data, according to Susnjara, off-fall material meeting the proper criteria is selected and the operator is prompted as to which piece of material to load onto the worktable (*see* col. 3, lines 45-50 of Susnjara). Thus, according to Susnjara, rather than selecting data, a particular piece of off-fall material is identified.

Furthermore, Applicant respectfully submits that no apparent reason exists for combining the Kishi and Susnjara references. The Examiner asserts that it would have been obvious to substitute one apparatus for providing workpiece data for the other to achieve the predictable result of providing workpiece data from a workpiece database. But the Examiner has not identified any reason, either in the references or known to one of skill in the art at the time of the

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invention, as to <u>why</u> it would have been desirable to modify the references or why it would be desirable to provide workpiece data from a workpiece database. Applicant respectfully submits that no such reason exists. Furthermore, Applicant respectfully submits that such a modification would change the principle of operation of Kishi, and as such, the combination is improper.

Accordingly, Applicant respectfully submits that claim 10 is patentable over Kishi and Susnjara at least for the reasons discussed above. Applicant respectfully submits that claims 11, 12, 21, 24, and 25 are patentable over Kishi and Susnjara at least by virtue of their dependency on claim 10.

Independent claims 15 and 16 recite features similar to, although not necessarily co-extensive with, the features discussed above with respect to independent claim 10. Consequently, Applicant respectfully submits that claims 15 and 16 are patentable over Kishi and Susnjara for at least the reasons discussed above with respect to claim 10. Applicant respectfully submits that claims 17 and 18 are patentable over Kishi and Susnjara at least by virtue of their dependency on claim 16.

Turning to dependent claim 21, the Examiner alleges that Kishi teaches "a workpiece selecting unit automatically performs the workpiece selecting," as recited, *inter alia*, in claim 21. Applicant respectfully disagrees.

As discussed above, according to Kishi, <u>one selects a blank profile and enters its dimensional values L, D, D₀, and the position of a base line ZP</u> (*see* col. 5, lines 16-25 of Kishi). Thus, the selecting is not automatically performed according to Kishi. Instead of teaching a workpiece selecting unit that automatically performs the workpiece selecting, Kishi teaches that the <u>user</u> manually inputs the dimensional values and the position of the base line. The Examiner

points to col. 1, lines 14-47 of Kishi, but according to Kishi, dimensions and various data are

entered in response to inquiries (*see* col. 1, lines 38-40 of Kishi).

Accordingly, Applicant respectfully submits that Kishi and Susnjara do not teach or

suggest a workpiece selecting unit automatically performs the workpiece selecting. At least for

this reason, Applicant respectfully submits that claim 21 is patentable over Kishi and Susnjara.

Kamiya in view of Susnjara and further in view of Fishman

Claims 13, 14, and 19-23 are rejected under 35 U.S.C. § 103(a) as allegedly being

unpatentable over Kamiya in view of Susnjara and further in view of U.S. Patent No. 6,112,133

to Fishman (hereinafter "Fishman").

Applicant respectfully submits that claims 13, 14, and 21-23 are patentable over Kamiya

and Susnjara at least by virtue of their dependency on claim 10. Applicant respectfully submits

that claims 19 and 20 are patentable over Kamiya and Susnjara at least by virtue of their

dependency on claim 16. Fishman does not cure the deficiencies of Kamiya and Susnjara with

respect to claims 10 and 16, as discussed above.

Kishi in view of Susnjara and further in view of Fishman

Claims 13, 14, 19, 20, 23, and 24 are rejected under 35 U.S.C. § 103(a) as allegedly being

unpatentable over Kishi in view of Susnjara and further in view of Fishman.

Applicant respectfully submits that claims 13, 14, 23, and 24 are patentable over Kishi

and Susnjara at least by virtue of their dependency on claim 10. Applicant respectfully submits

that claims 19 and 20 are patentable over Kishi and Susnjara at least by virtue of their

dependency on claim 16. Fishman does not cure the deficiencies of Kishi and Susnjara with

respect to claims 10 and 16, as discussed above.

V.   Conclusion

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

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Date: June 24, 2008